Abstract

3D Cone Beam Reconstruction

5   A backprojection unit is described that is adapted for back-
    projecting pixel data of n acquired projections onto a voxel
    subvolume, with n being a natural number. For each of the n
    projections, the backprojection unit comprises voxel center
    determination means adapted for projecting m contiguous vox-
10 els onto a respective one of the projections, with m ≥ 2 be-
    ing a natural number, memory access means adapted for fetch-
    ing, for each of the m projected voxel centers, pixel data of
    pixels adjacent to the projected voxel center from a respec-
    tive projection buffer, and multiplexing means adapted for
15 distributing the fetched pixel data to m different pipelines.
    Furthermore, a method for backprojecting pixel data of n ac-
    quired projections onto a voxel subvolume is disclosed.

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